

# JVC

## SCHEMATIC DIAGRAMS

LCD INTEGRATED DIGITAL TELEVISION

**LT-42A80SU, LT-42A80ZU, LT-42DA8BJ,  
LT-42DA8SJ, LT-42DA8SU, LT-42DA8ZU,  
LT-42DA81U, LT-42DT8ZJ**

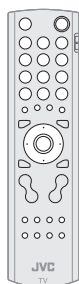
CD-ROM No.SML200704

BASIC CHASSIS

FT3



[A80 series]



[DA8 series]  
[DT8 series]



InteriArt  
DynaPiX  
Powered by D.L.S.T.

**HD**  
ready

**HDMI**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

**T-V LINK**


**DVB**  
Digital Video  
Broadcasting

# LT-42A80SU, LT-42A80ZU, LT-42DA8BJ, LT-42DA8SJ LT-42DA8SU, LT-42DA8ZU, LT-42DT8ZJ, LT-42DA81U

## STANDARD CIRCUIT DIAGRAM

### ■ NOTE ON USING CIRCUIT DIAGRAMS

#### 1.SAFETY

The components identified by the  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

#### 2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal : Colour bar signal
- (2)Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3)Internal resistance of tester : DC 20k $\Omega$ /V
- (4)Oscilloscope sweeping time : H  $\Rightarrow$  20 $\mu$ s / div  
: V  $\Rightarrow$  5ms / div  
: Others  $\Rightarrow$  Sweeping time is specified
- (5)Voltage values : All DC voltage values

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

#### 3.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209  $\rightarrow$  R209

#### 4.INDICATIONS ON THE CIRCUIT DIAGRAM

##### (1)Resistors

###### ● Resistance value

- No unit : [ $\Omega$ ]
- K : [k $\Omega$ ]
- M : [M $\Omega$ ]

###### ● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

###### ● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflammable resistor
- FR : Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

##### (2)Capacitors

###### ● Capacitance value

- 1 or higher : [pF]
- less than 1 : [ $\mu$ F]

###### ● Withstand voltage

- No indication : DC50[V]
- Others : DC withstand voltage [V]
- AC indicated : AC withstand voltage [V]

\* Electrolytic Capacitors

47/50[Example]: Capacitance value [ $\mu$ F]/withstand voltage[V]

###### ●Type

- No indication : Ceramic capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

##### (3)Coils

- No unit : [ $\mu$ H]
- Others : As specified

##### (4)Power Supply



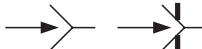
-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

\* Respective voltage values are indicated





##### (5)Test point

-  : Test point
-  : Only test point display



##### (6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

##### (7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

#### 5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : () side GND and the ISOLATED(NEUTRAL) : () side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus ( oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

##### NOTE

◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

# CONTENTS

SEMICONDUCTOR SHAPES ..... 2-2

WIRING DIAGRAM ..... 2-3

BLOCK DIAGRAM ..... 2-5

## CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM ..... 2-7

POWER PWB CIRCUIT DIAGRAM ..... 2-13

LED PWB CIRCUIT DIAGRAM ..... 2-17

SW PWB CIRCUIT DIAGRAM ..... 2-19

## PATTERN DIAGRAMS

MAIN PWB PATTERN ..... 2-21

POWER PWB PATTERN ..... 2-25

LED PWB PATTERN ..... 2-27

SW PWB PATTERN ..... 2-27

VOLTAGE CHARTS ..... 2-29

WAVEFORMS ..... 2-30

## USING P.W. BOARD

P.W.B ASS'Y name	LT-42A80SU	LT-42A80ZU	LT-42DA8BJ	LT-42DA8SJ
MAIN P.W. BOARD	SFT-1013A-U2	←	SFT-1014A-U2	←
SW P.W. BOARD	SFT-7201A-U2	←	←	←
LED P.W. BOARD	SFT-8903A-U2	←	←	←
POWER P.W. BOARD	SFT-9004A-U2	←	←	←

P.W.B ASS'Y name	LT-42DT8ZJ	LT-42DA8SU	LT-42DA8ZU	LT-42DA81U
MAIN P.W. BOARD	SFT-1014A-U2	←	←	←
SW P.W. BOARD	SFT-7201A-U2	←	←	←
LED P.W. BOARD	SFT-8903A-U2	←	←	←
POWER P.W. BOARD	SFT-9004A-U2	←	←	←

## SEMICONDUCTOR SHAPES

### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

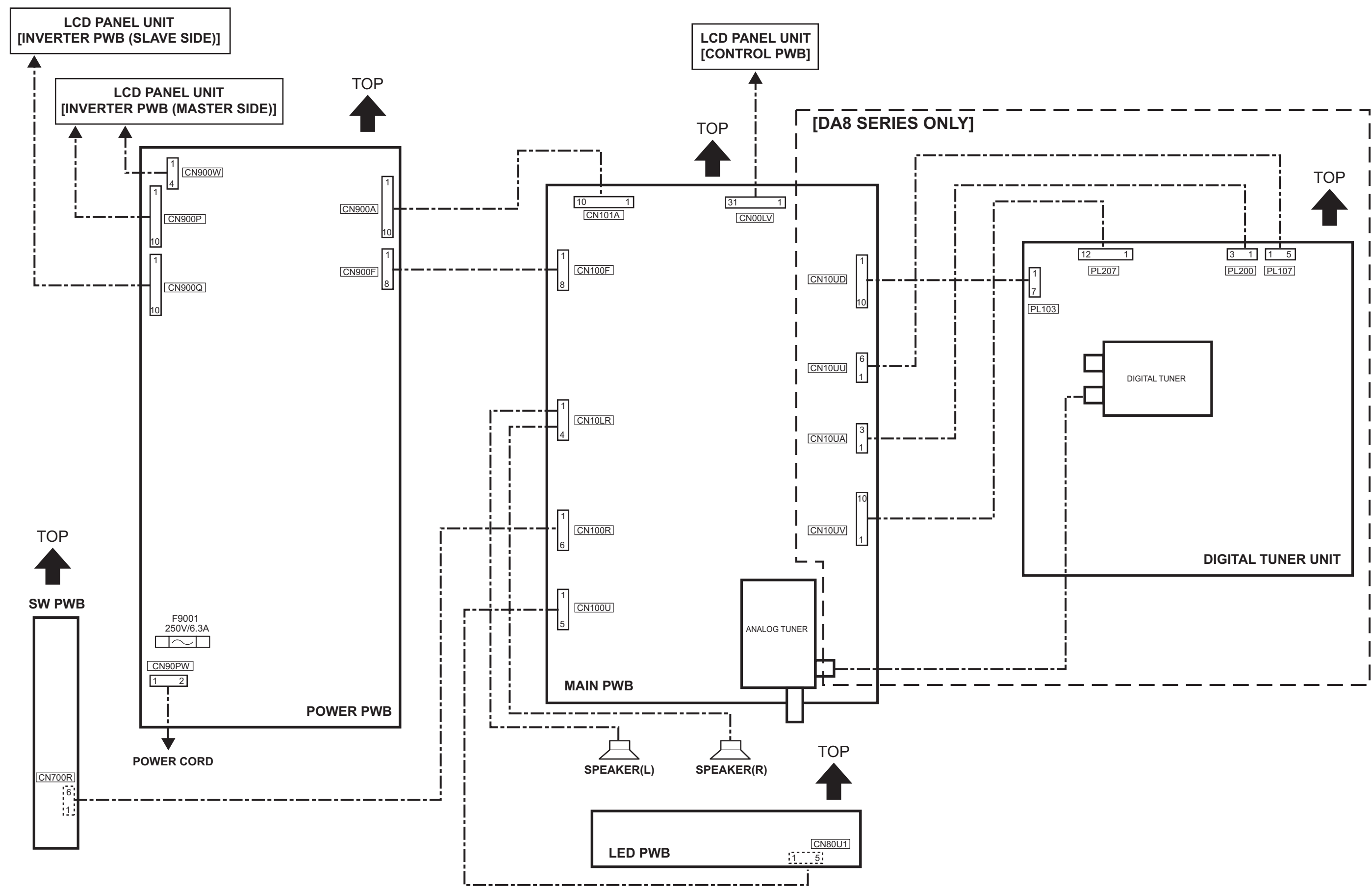
### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

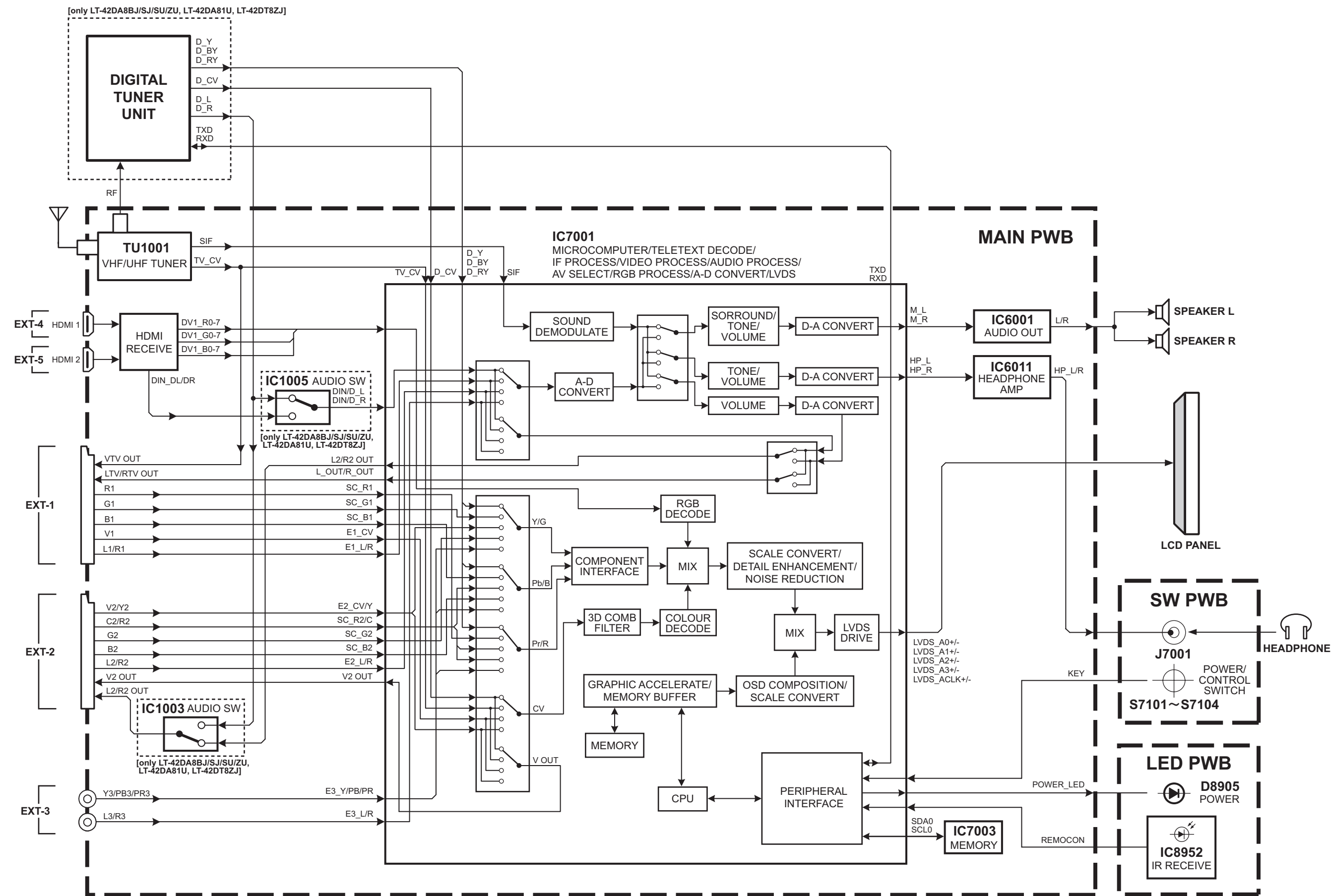
### CHIP IC

TOP VIEW		

WIRING DIAGRAM



BLOCK DIAGRAM



MAIN PWB CIRCUIT DIAGRAM (1/3) SHEET 1



SFT-1013A-U2  
[LT-42A80SU, LT-42A80ZU]  
SFT-1014A-U2  
[LT-42DA8BJ, LT-42DA8SJ,  
LT-42DT8ZJ, LT-42DA8SU,  
LT-42DA8ZU, LT-42DA81U]

SHEET 2SHEET 3LCD PANEL UNIT  
[CONTROL PWB]

— SHEET 2

## DIGITAL INPUT BLOCK

SHEET 2

SHEET 3  
SHEET 2

SHEET 2

DIGITAL INPUT BLOCK

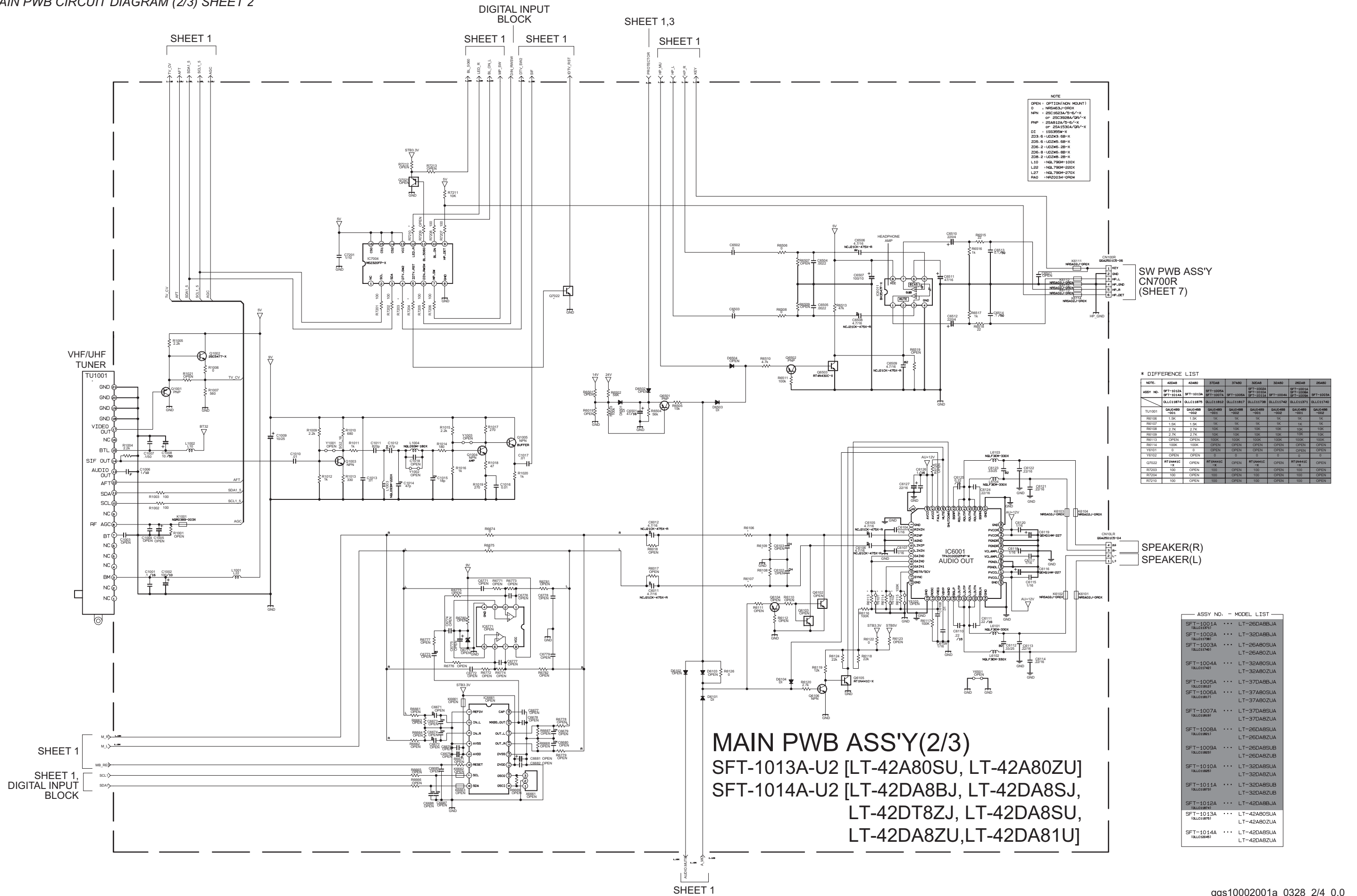
SHEET 2

DIGITAL I

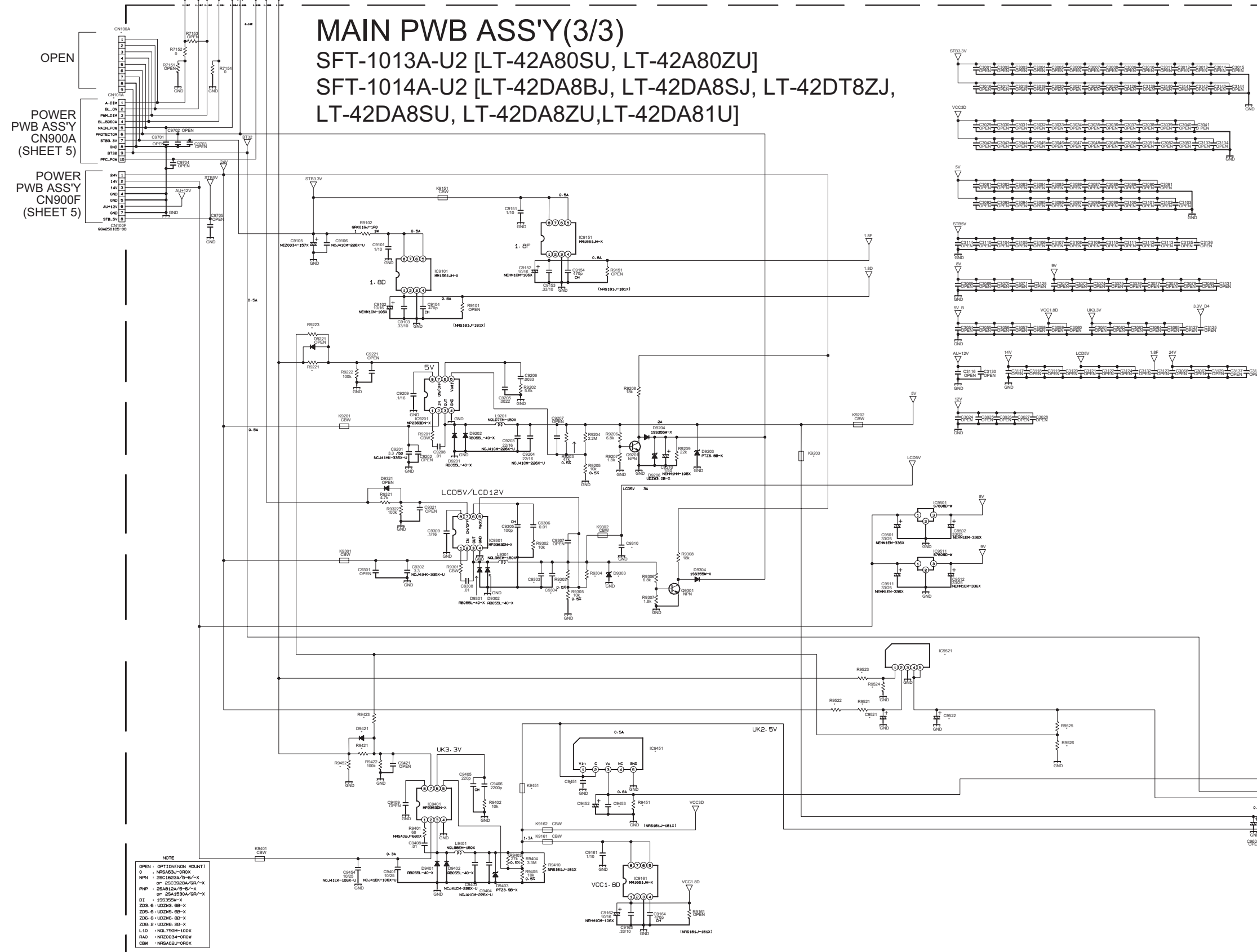
5572

NOTE : Refer to the part list for the part number of IC7003.





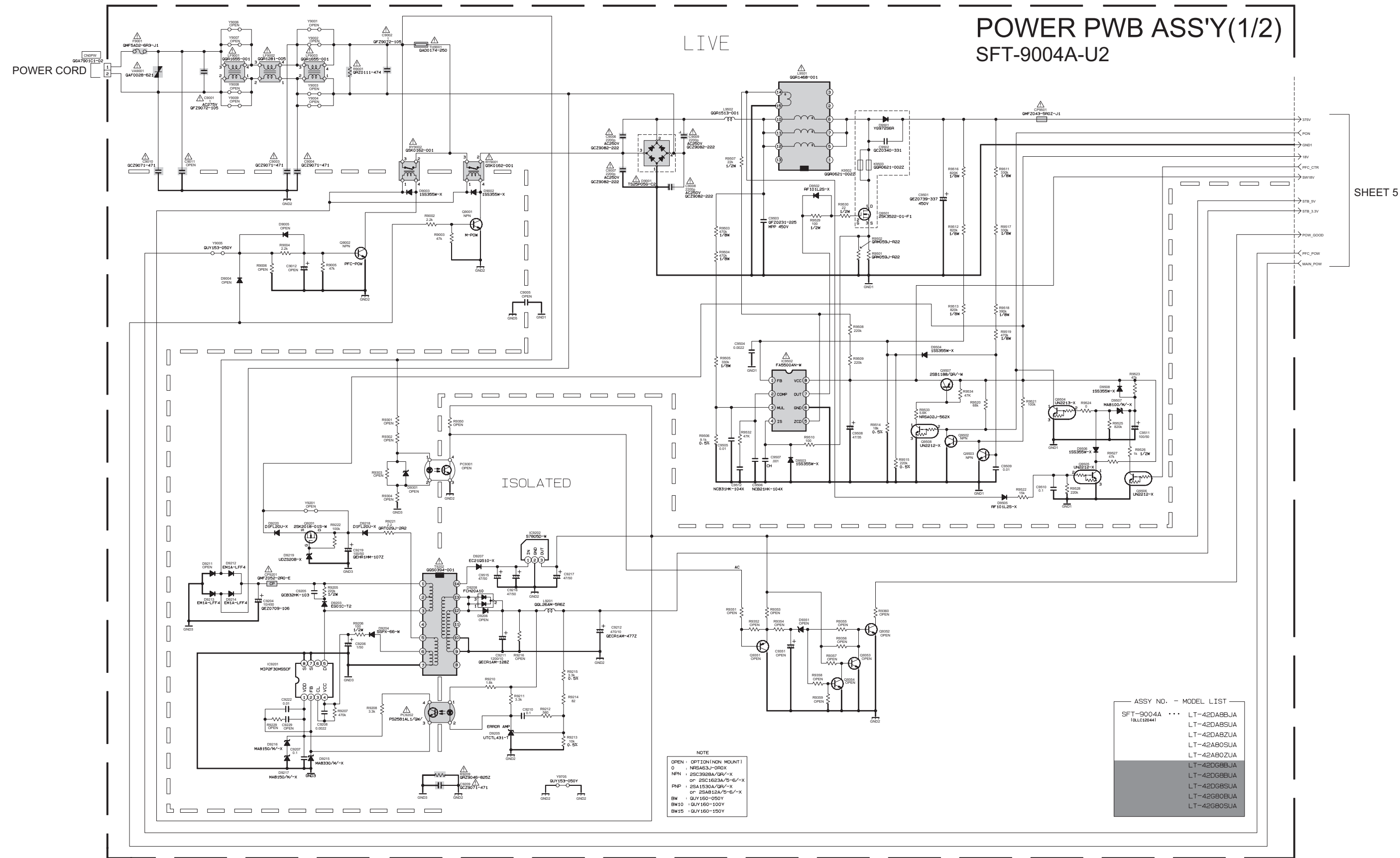
MAIN PWB ASS'Y(3/3)  
SFT-1013A-U2 [LT-42A80SU, LT-42A80ZU]  
SFT-1014A-U2 [LT-42DA8BJ, LT-42DA8SJ, LT-42DT8ZJ,  
LT-42DA8SU, LT-42DA8ZU,LT-42DA81U]

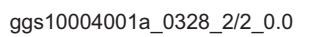
[illegible]

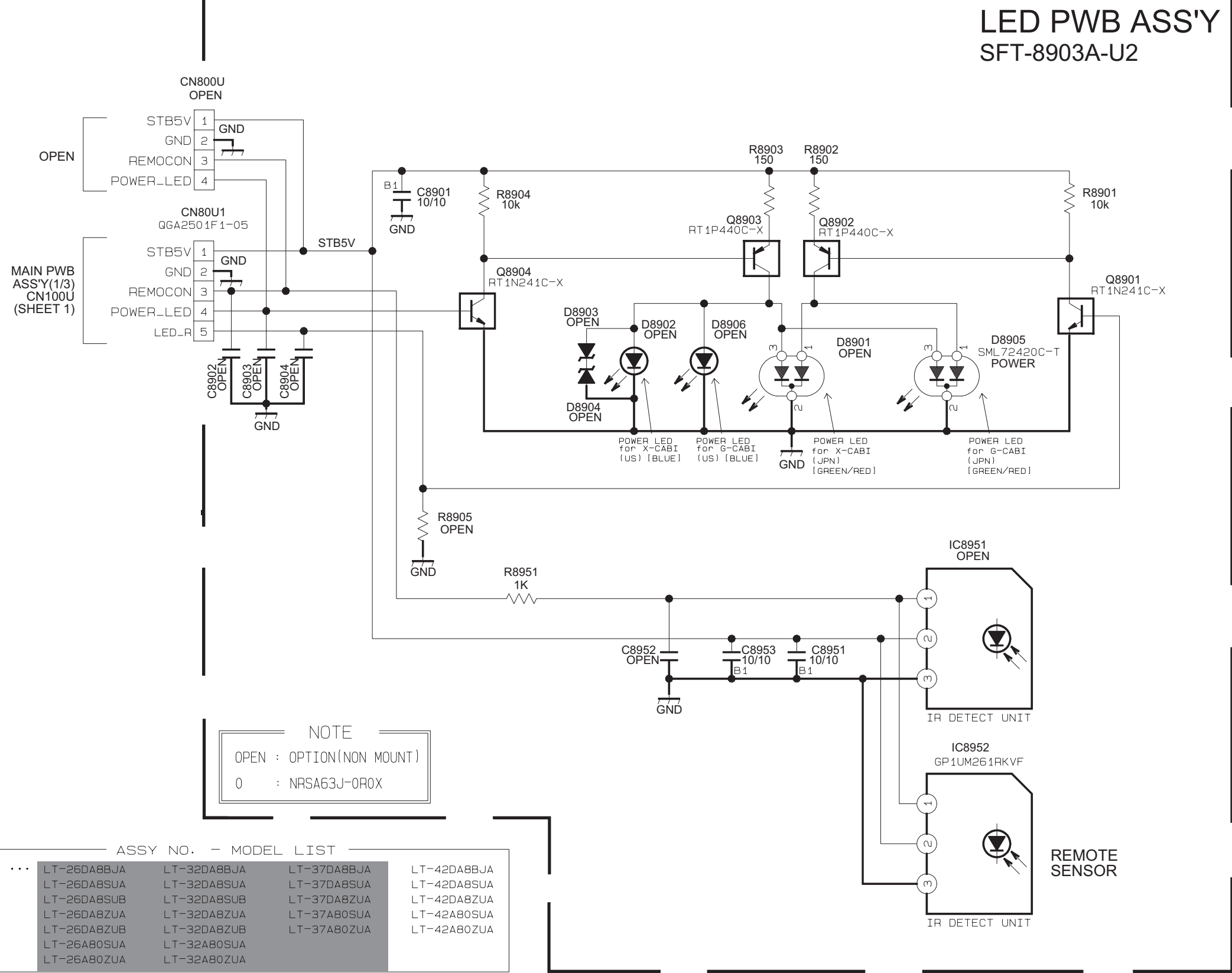
ASSY NO.	MODEL LIST
SFT-1001A (0LL15177)	LT-26DABJA
SFT-1002A (0LL15177)	LT-32DABJA
SFT-1003A (0LL15176)	LT-26A80UA
	LT-26A80ZUA
SFT-1004A (0LL15147)	LT-32A80UA
	LT-32A80ZA
SFT-1005A (0LL15177)	LT-37DABJA
SFT-1006A (0LL15181)	LT-37A80UA
	LT-37A80ZUA
SFT-1007A (0LL15189)	LT-37DABUA
	LT-37DABZUA
SFT-1008A (0LL15182)	LT-26DABUA
	LT-26DABZUA
SFT-1009A (0LL15183)	LT-26DABZU
	LT-26DABZUB
SFT-1010A (0LL15177)	LT-32DABUA
	LT-32DABZUA
SFT-1011A (0LL15173)	LT-32DABUA
	LT-32DABZUB
SFT-1012A (0LL15174)	LT-42DABJA
SFT-1013A (0LL15175)	LT-42A80SUA
	LT-42A80ZUA
SFT-1014A (0LL15160)	LT-42DABUA
	LT-42DABZUA

DIGITAL TUNER UNIT  
[DA8 SERIES ONLY]

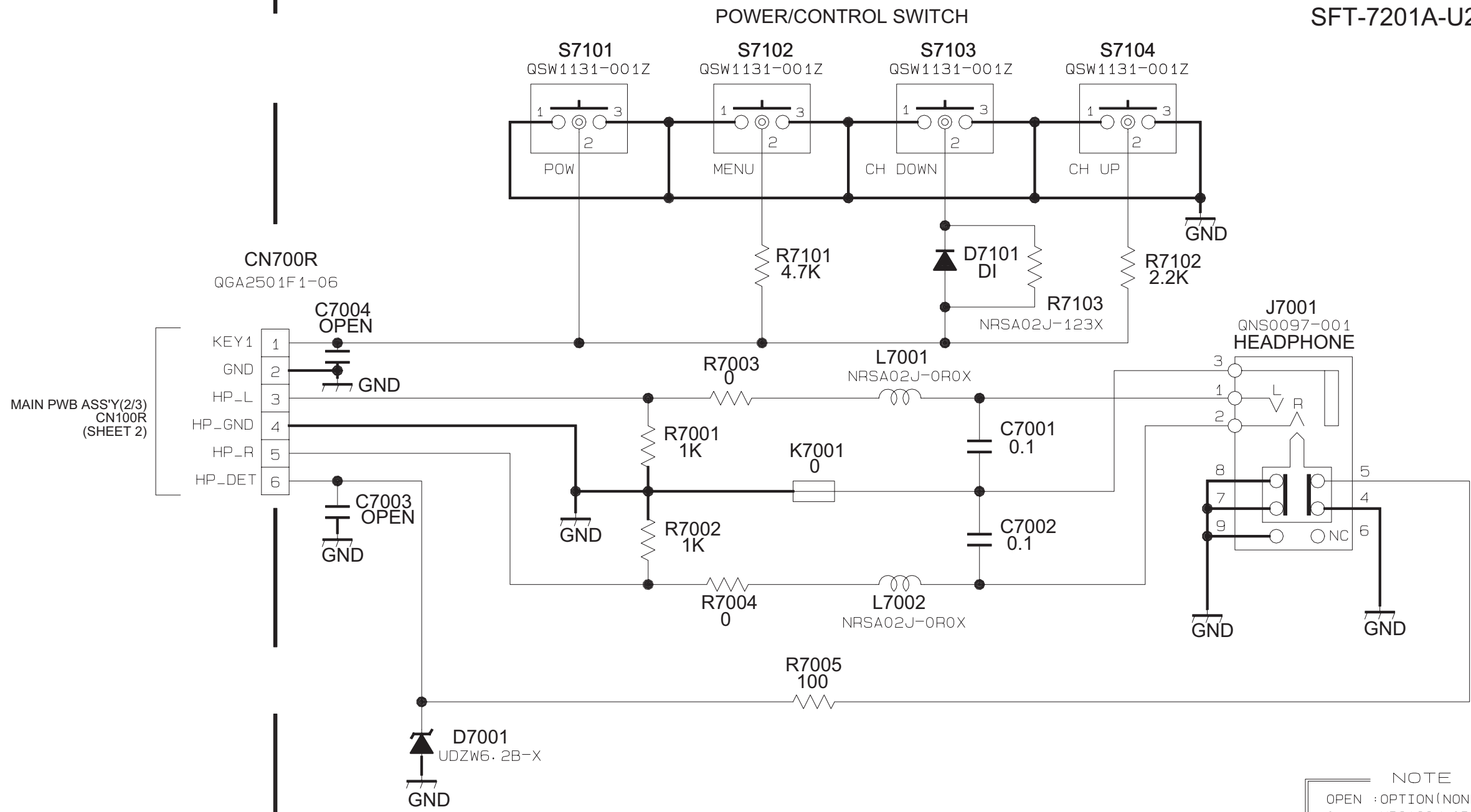








SW PWB ASS'Y  
SFT-7201A-U2



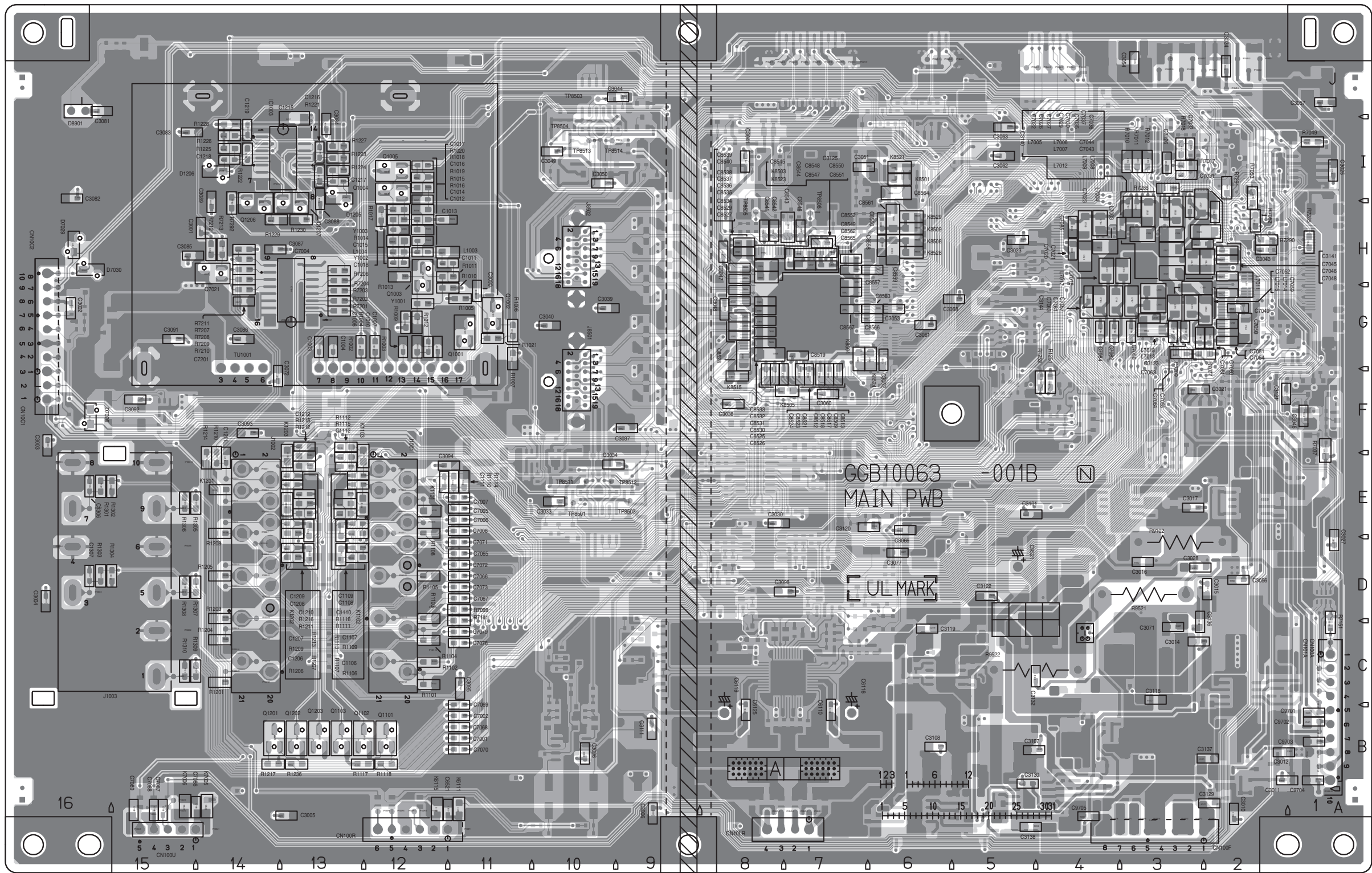
NOTE

OPEN : OPTION(NON MOUNT)  
0 : NRSA63J-0R0X  
DI : 1SS355W-X

ASSY NO. - MODEL LIST

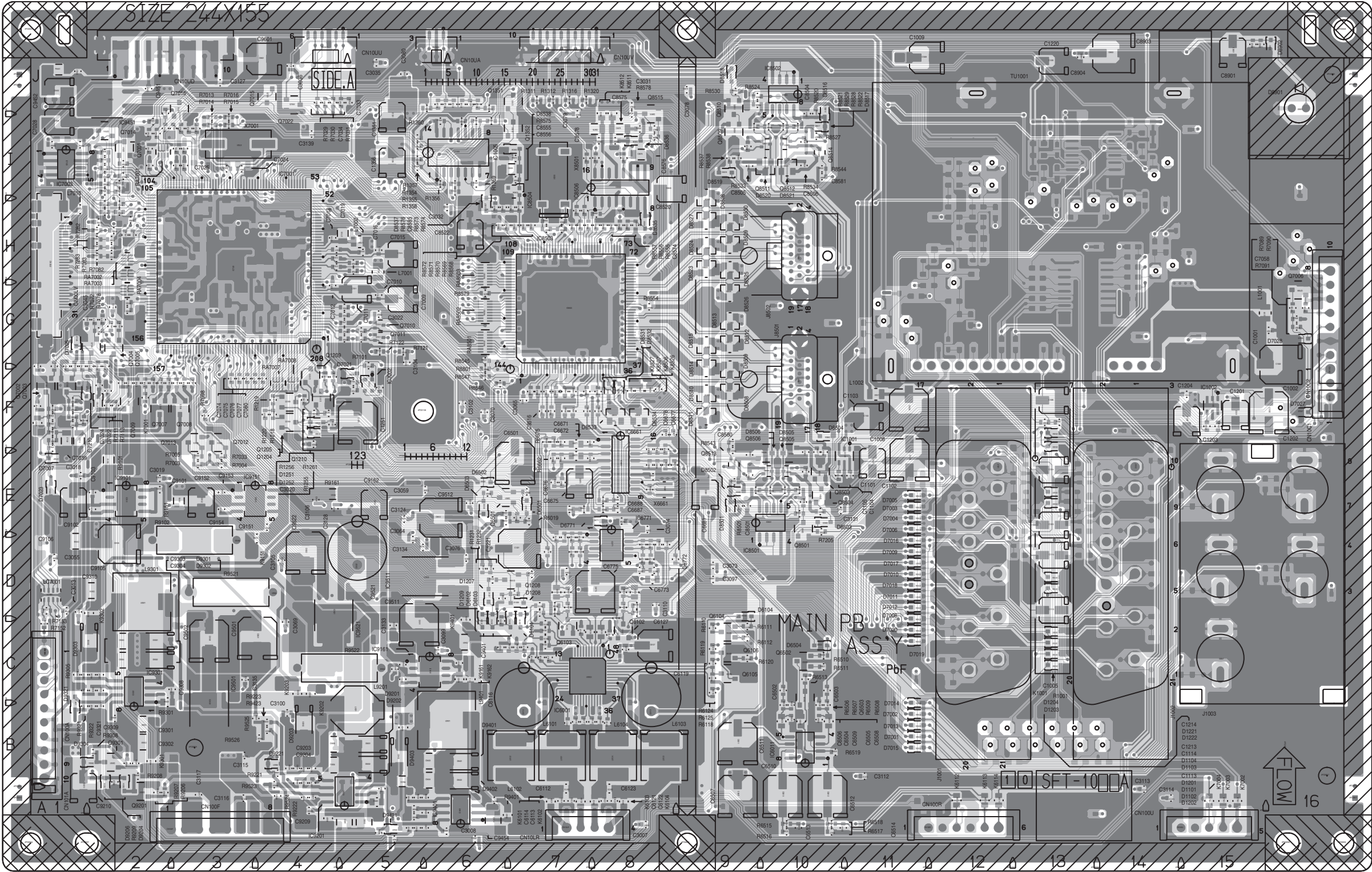
SFT-7201A (0LLC11375)	LT-26DA8BJA	LT-32DA8BJA	LT-37DA8BJA	LT-42DA8BJA
	LT-26DA8SUA	LT-32DA8SUA	LT-37DA8SUA	LT-42DA8SUA
	LT-26DA8SUB	LT-32DA8SUB	LT-37DA8ZUA	LT-42DA8ZUA
	LT-26DA8ZUA	LT-32DA8ZUA	LT-37A80SUA	LT-42A80SUA
	LT-26DA8ZUB	LT-32DA8ZUB	LT-37A80ZUA	LT-42A80ZUA
	LT-26A80SUA	LT-32A80SUA	LT-37D68BJA	LT-42D68BJA
	LT-26A80ZUA	LT-32A80ZUA	LT-37D68SUA	LT-42D68SUA
		LT-32D68BJA	LT-37G80SUA	LT-42G80SUA
		LT-32D68SUA		
		LT-32G80SUA		

PATTERN DIAGRAMS  
MAIN PWB PATTERN [SOLDER SIDE]

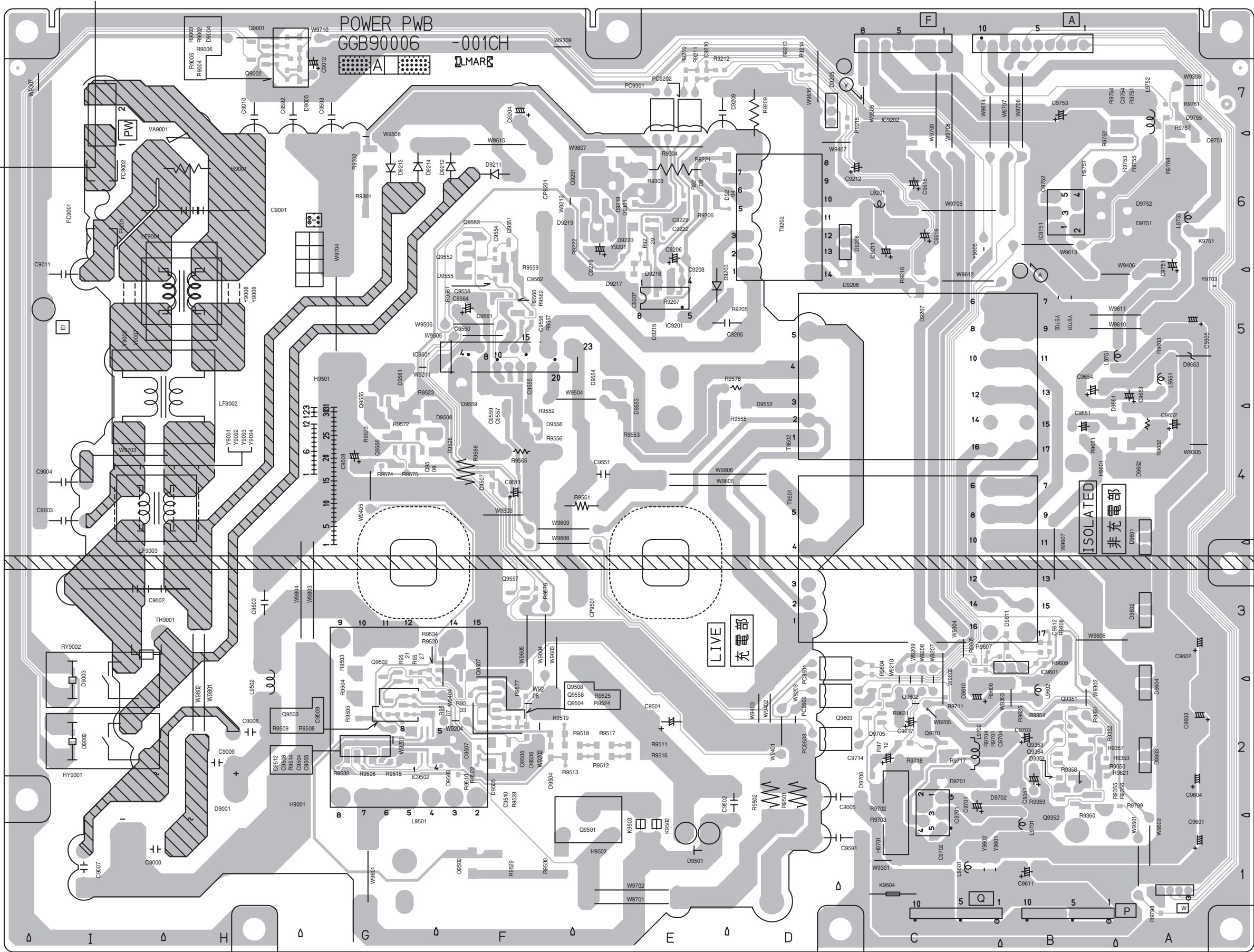


TOP  
→

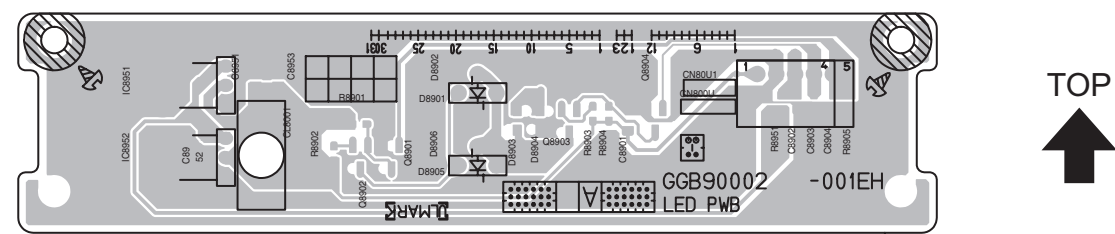






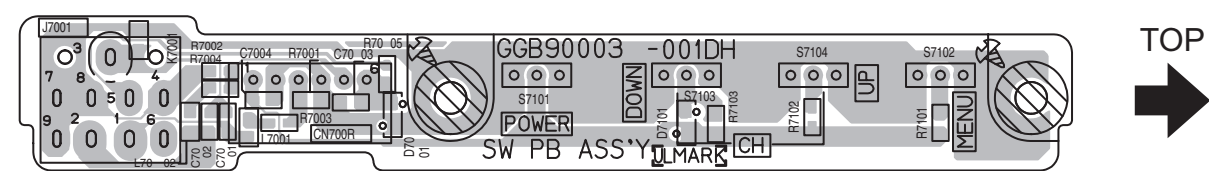


LED PWB PATTERN



TOP  
↑

SW PWB PATTERN



TOP  
→

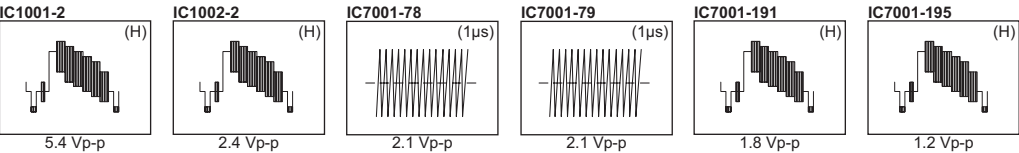
## VOLTAGE CHARTS

MAIN PWB> [P.2-7 - P.2-8]		MODE PIN NO.		DC (V)
IC1001		53	1.6	
1	4.2	54	1.6	
2	4.5	55	1.6	
3	8.9	56	1.6	
4	3.2	57	1.6	
5	0	58	1.6	
6	8.9	59	1.6	
IC1002		60	1.6	
1	2.1	61	1.6	
2	2	62	1.1	
3	8.9	63	1.1	
4	2.2	64	1.1	
5	0	65	1.1	
6	8.9	66	1.1	
IC1003		67	1.1	
1	4.4	68	1.1	
2	4.4	69	1.1	
3	4.4	70	1.1	
4	4.4	71	1.1	
5	7.5	72	1.1	
6	7.5	73	1.1	
7	0	74	0	
8	4.4	75	3.2	
9	4.4	76	0	
10	4.4	77	3.2	
11	4.4	78	1.6	
12	0	79	1.6	
13	0	80	1.4	
14	9	81	0	
IC1005		82	0	
1	4.4	83	1.9	
2	4.4	84	1.7	
3	4.4	85	0	
4	4.4	86	3.3	
5	0	87	0	
6	0	88	2.3	
7	0	89	0	
8	4.4	90	0	
9	4.4	91	3.3	
10	4.4	92	0	
11	4.4	93	0.2	
12	9	94	0.2	
13	9	95	0	
14	9	96	3.2	
IC7001		97	0.2	
1	0	98	0.2	
2	0.1	99	0	
3	0	100	3.2	
4	1.5	101	3.2	
5	NC	102	3.2	
6	NC	103	0.2	
7	1.6	104	0.2	
8	3.2	105	0	
9	3.6	106	0	
10	3.6	107	0	
11	3.7	108	0	
12	3.6	109	1.8	
13	3.6	110	1.8	
14	3.6	111	0.1	
15	3.6	112	0.1	
16	3.6	113	0	
17	3.6	114	3.2	
18	7.8	115	0	
19	0	116	0	
20	0	117	0	
21	0	118	2.4	
22	0	119	0	
23	3.6	120	0	
24	3.7	121	NC	
25	3.6	122	NC	
26	3.6	123	0	
27	3.6	124	1.6	
28	3.6	125	NC	
29	NC	126	NC	
30	0	127	3.2	
31	1.4	128	1.1	
32	0	129	0	
33	4.9	130	0	
34	0	131	1.1	
35	0	132	1.1	
36	3.2	133	3.2	
37	NC	134	1.1	
38	0	135	1.1	
39	0	136	0	
40	0	137	1.1	
41	NC	138	1.2	
42	0	139	3.2	
43	NC	140	1	
44	NC	141	1.3	
45	3.2	142	1.7	
46	0	143	1.1	
47	0.9	144	0	
48	0	145	NC	
49	0.9	146	NC	
50	1.6	147	0	
51	1.6	148	NC	
52	1.6	149	NC	

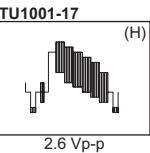
MODE PIN NO.	DC (V)
Q1204	
E	2
C	2.8
B	0
Q1205	
E	3
C	2.9
B	0
Q1206	
E	0
C	7.5
B	0
Q1207	
E	0
C	0
B	7.5
Q1208	
E	23.1

# WAVEFORMS

# MAIN PWB(1/3)



## MAIN PWB(2/3)





Victor Company of Japan, Limited  
Display category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA515)



Printed in Japan  
VPT